DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-001995
Date Inspected: 27-Apr-2008

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 1400
OSM Departure Time: 2300
Location: Shanghai, China

CWI Name:	Chen Xi			**CWI Present:**	☑ Yes	☐ No	
Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**Rod Oven in Use:**	☐ Yes	☐ No	☑ N/A
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: Deck Panels

Summary of Items Observed:

On this day CALTRANS OSM Quality Assurance Inspector (QA) Steve Hall was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

OBG bay 1 (Gantry 1)

QA observed ZPMC qualified welding personnel perform the SAW welds joining the closed U-Ribs to deck panels DP-352-001 and DP-111-001. QA observed 3 ZPMC QC inspectors in the vicinity of the welding operations including ZPMC CWI identified as Chen Xi. There were also 3 American Bridge/Fluor (ABF) inspectors in the area as well. QA and QC inspectors performed a random visual inspection of the GMAW root welds on these panels. All completed GMAW welds appeared to meet the requirements of the contract documents. QA and QC monitored the welding process continuously throughout the evening. QA completed a production panel welding reports for deck panels DP-352-001 and DP-111-002. The reports are on file in the Caltrans QA office. The welder identifications and the welding parameters as measured with the calibrated gages on the machines appeared to be in conformance with the posted WPS's and were as follows:

DP-352-001 SAW
Volts: 24.7 – 26 Amps: 678 – 690 Travel speed: 515mmpm

Welder ID#'s

Weld joint 1: 059468
Weld joint 2: 059403
Weld joint 3: 062265
Weld joint 4: 059361
Weld joint 5: 062265
Weld joint 6: 059361
Weld joint 7: 059416
Weld joint 8: 059371
Weld joint 9: 059416
Weld joint 10: 059371

DP-111-001 SAW
Volts: 24 – 25.8 Amps: 677 – 689 Travel speed: 515-520mmpm

Welder ID#'s
Weld joint 1: 059468
Weld joint 2: 059403
Weld joint 3: 062265
Weld joint 4: 059361
Weld joint 5: 062265
Weld joint 6: 059361
Weld joint 7: 059416
Weld joint 8: 059371

Gantry 2 (idle)

QA randomly Visually Tested (VT'ed) DP-329-001 and found weld 8 exhibited three long areas of incomplete fusion ranging in lengths of 300mm to 760mm (see pictures). QA did not perform a full visual weld inspection on this panel as QC has not yet completed they're visual inspection.

Other general observations by QA were as follows:

QA observed ZPMC has approximately 60-70 workers performing various functions relative to the fabrication of the OBG Deck Panels. These functions include; closed rib press forming, hole drilling at ends of U-Ribs using a drill template, PJP bevel preparation, closed rib splice FCAW welding, closed rib diaphragm fit-up and FCAW welding, closed rib to deck plate fit-up and tack welding.

WELDING INSPECTION REPORT

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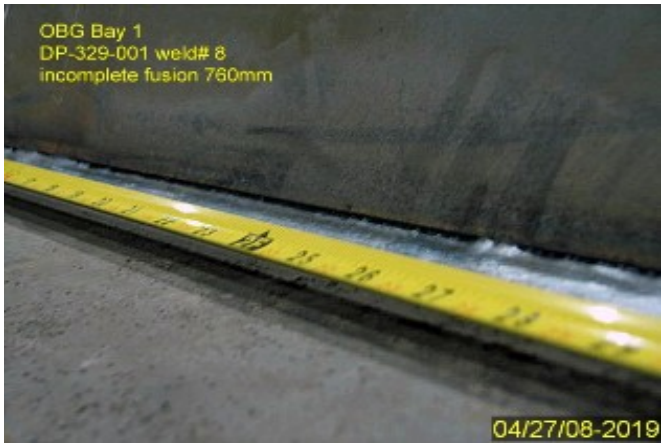

Summary of Conversations:

Only general conversations were held between QC inspectors and QA concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Patrick Lowry (858)-344-2712, who represents the Office of Structural Materials for your project.

Inspected By:	Hall,Steven	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer